

ABSTRACT

Kurniati (2014). The Enhancement of Critical and Creative Thinking Ability in Mathematics and Soft Skills of Primary School Teacher Education Students through Contextual Teaching and Learning Approach.

This research aimed to examine the effect of the application of contextual teaching and learning (CTL) approach to the enhancement of critical thinking ability in mathematics (CTAM), creative thinking ability in mathematics (VTAM), as well as the soft skills of Primary School Teacher Education Students (PSTES). This research was quasi experimental study with the population of all PSTES in one university in the city of Bogor. The samples were PSTES who took algebra. There were two groups of samples used in the study. The first group was the experimental group, while the second group was the control group. The experimental group was given contextual teaching and learning (CTL) approach, while the control group was given conventional (CA) approach. The design of this study was a pretest-posttest control group design. The instruments used in this study were: student prior knowledge (SPK) test, pretest and posttest of CTAM and VTAM, scale of soft skills, student journals, interview and observation sheets. The scale of soft skills involved self-assessment and peer-assessment of soft skills. Student prior knowledge consists of three groups, namely high SPK, middle SPK and low SPK. The statistical analysis used to test the hypothesis of this study were the t-test, t'-test, two-way ANOVA with interaction, Mann-Whitney test, Kruskal-Wallis test, and the average of normalized gain. The results show the students' enhancement of CTAM, VTAM and soft skills who obtained CTL are better than the students who obtained CA. There are differences in CTAM and VTAM enhancement between the students in the groups of high SPK, middle SPK, and low SPK, both the students who obtained the CTL approach and CA approach. There are differences in the students' enhancement in CTAM and VTAM based on students' SPK. There is no interaction between learning factors and SPK factors on the students' enhancement in CTAM and VTAM. The categories of CTAM and VTAM enhancement of the students who obtained CTL is higher than students who obtained CA. There is no correlation between the students' enhancement in CTAM and the students' soft skill. There is no correlation between the students' enhancement in VTAM and the students' soft skill. The students who obtained CTL are more active in asking and answering questions, and doing tasks, compared to the students who earned CA. The students who obtained CTL also have the ability to answer the questions related to CTAM and VTAM systematically.

Keywords: Critical Thinking Ability in Mathematics, Creative Thinking Ability in Mathematics, Soft Skills, Contextual Teaching and Learning Approach

ABSTRAK

Kurniati (2014). Peningkatan Kemampuan Berpikir Kritis dan Kreatif Matematis serta *Soft Skill* Mahasiswa Pendidikan Guru Sekolah Dasar melalui Pendekatan Pembelajaran Kontekstual.

Penelitian ini bertujuan untuk menelaah pengaruh penerapan pendekatan pembelajaran kontekstual terhadap peningkatan kemampuan berpikir kritis matematis (KBKM), kemampuan berpikir kreatif matematis (KBFM), serta *soft skill* mahasiswa Pendidikan Guru Sekolah Dasar (PGSD). Penelitian ini merupakan penelitian kuasi eksperimen dengan populasi seluruh mahasiswa PGSD yang mengambil mata kuliah aljabar pada salah satu perguruan tinggi swasta di Kota Bogor. Terdapat dua kelompok sebagai sampel penelitian yang diambil secara acak kelas. Kelompok pertama sebagai kelompok eksperimen, sedangkan kelompok kedua sebagai kelompok kontrol. Kelompok eksperimen diberi pendekatan pembelajaran kontekstual (PK), sedangkan kelompok kontrol diberi pendekatan pembelajaran biasa (PB). Desain penelitian yang digunakan adalah *Pretest-Posttest Control Group Design*. Instrumen yang dipergunakan dalam penelitian ini adalah: Tes Kemampuan Awal Mahasiswa (KAM), pretes dan postes KBKM dan KBFM, skala *soft skill*, jurnal mahasiswa, lembar wawancara, dan lembar observasi. Skala *soft skill* mencakup *soft skill* penilaian diri dan penilaian teman. KAM terdiri dari tiga kelompok yaitu: kelompok KAM tinggi, KAM sedang dan KAM rendah. Analisis statistik yang digunakan untuk menguji hipotesis penelitian ini adalah: uji-t dan uji-t', uji ANOVA dua jalur dengan interaksi, uji Mann- Whitney, uji Kruskal-Wallis, dan nilai gain rata-rata ternormalisasi. Hasil penelitian menunjukkan bahwa peningkatan KBKM, KBFM dan *soft Skill* mahasiswa yang memperoleh PK lebih baik daripada mahasiswa yang memperoleh PB. Terdapat perbedaan peningkatan KBKM dan KBFM antara mahasiswa pada kelompok KAM tinggi, KAM sedang dan KAM rendah, baik pada kelompok PK maupun PB. Terdapat perbedaan peningkatan KBKM dan KBFM berdasarkan KAM. Tidak terdapat interaksi antara faktor pembelajaran dengan faktor KAM, baik terhadap KBKM maupun KBFM. Kategori peningkatan KBKM dan KBFM pada mahasiswa yang memperoleh PK lebih tinggi daripada mahasiswa yang memperoleh PB. Tidak terdapat korelasi antara peningkatan KBKM mahasiswa dengan *soft skill* mahasiswa. Tidak terdapat korelasi antara peningkatan KBFM mahasiswa dengan *soft skill* mahasiswa. Mahasiswa yang memperoleh PK lebih aktif bertanya, menjawab pertanyaan, dan mengerjakan tugas-tugas daripada mahasiswa yang memperoleh PB. Mahasiswa yang memperoleh PK memiliki kemampuan menjawab soal postes secara sistematis.

Kata Kunci: Kemampuan Berpikir Kritis Matematis, Kemampuan Berpikir Kreatif Matematis, *Soft Skill*, dan Pendekatan Pembelajaran Kontekstual.